

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 32-R-0027
CUSTOMER NUMBER: 803

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Indiana University-Southeast
4201 Grant Line Rd.
New Albany, IN 47150

Telephone: (812) -941-2200

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, or experimentation, or held for these purposes. Attach additional sheets if necessary)

FACILITY LOCATIONS (Sites) - See Attached Listing

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS Form 7023A)

A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals an for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for wh the use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, res or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reaso such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters					
8. Rabbits					
9. Non-human Primates					
10. Sheep					
11. Pigs					
12. Other Farm Animals					
13. Other Animals					
Frogs		253			253
Sprague-Dawley Rats		53			53
Rice Rats (Oryzomys Palustris)	207	0	90	82	172

ASSURANCE STATEMENTS

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual rese teaching, testing, surgery, or experimentation were followed by this research facility.
- 2) Each principal investigator has considered alternatives to painful procedures.
- 3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and ap Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC-approved exceptions, this summary inc brief explanation of the exceptions, as well as the species and number of animals affected.
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

SIGNATURE OF C.E.O. OR INSTITUTIONAL OFFICIAL

NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)

DATE SIGNED

(b)(6), (b)(7)c

11/20/07

CLAW

Provide a scientific justification to explain why the use of anesthetics, analgesics, sedatives or tranquilizers during and/or following painful or distressing procedures is contraindicated:

Collection of trunk blood samples in experiments performed required rapid sacrifice to prevent a potential stress-induced alteration of neurohormone levels. Therefore, no anesthetic or tranquilizing drugs were used prior to sacrifice as is recommended by the AVMA Panel on Euthanasia. Literature searches conducted indicate that rapid euthanasia without the use of anesthesia is a necessary research technique whenever there is a likelihood of anesthesia or stress interfering with the chemistry of the tissues under investigation. As this could potentially happen, I did not want to jeopardize the outcome of the experiments by administering any drugs to these animals prior to decapitation. That would defeat the purpose of the experiments and possibly result in the use of additional animals, an outcome that the IACUC Committee wants to avoid. In support of the use of decapitation only, Nakai et al., 2005 state that it is critical to avoid anaesthetizing experimental animals and that decapitation is the preferred method for euthanasia when conducting neurochemical studies. In addition, Holson, 1992, has shown that euthanasia by decapitation produces prompt, painless unconsciousness in laboratory rodents, while Derr, 1991 has shown that the maximum time that pain and distress could be perceived would be about 2.7 seconds and that decapitation of rats may be considered a humane method of euthanasia. Lastly, Vanderwolf, 1988 concluded the cerebral reaction to decapitation does not resemble the cerebral reaction to painful stimuli and that decapitation would also not be considered inhumane. Recently, the ACLAM Task Force on Rodent Euthanasia issued a report on the effects of decapitation alone on various biological parameters, but no information was included regarding effects on the neurohormone of interest (melatonin from the pineal gland). Since little or nothing is known it was advisable to perform these studies utilizing only decapitation to prevent possible effects on the data being obtained.

Literature Cited

- Artwohl J, Brown P, Corning B, and Stein S. (2006) Report of the ACLAM Task Force on rodent euthanasia. J. Amer. Assoc. Lab. Anim. Sci. 45:98-105.
- Derr RF. (1991) Pain perception in decapitated rat brain. Life Sci. 49:1399-1402.
- Holson, RR. (1992) Euthanasia by decapitation: evidence that this technique produces prompt, painless unconsciousness in laboratory rodents. Neurotoxicol Teratol. 14:253-257.
- Nakai JS, Elwin J, Chu I, and Marro L. (2005) Effect of anaesthetics [sol] terminal procedures on neurotransmitters from non-dosed and Aroclor 1254-dosed rats. J. Appl. Toxicol. 25:224-233.
- Vanderwolf CH, Buzsaki G, Cain DP, Cooley RK, and Robertson B. (1988) Neocortical and hippocampal electrical activity following decapitation in the rat. Brain Res. 451:340-344.